

REMARKS

Reconsideration is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Heitman et al. (US 2003/0177168). Applicants respectfully traverse. Heitman et al. discloses the type of network discovery system referenced in the Background section of the subject application. Heitman et al. fails to disclose at least the final three clauses of Claim 11, as follows:

1) agent capability determining logic in said discovery agents adapted to generate agent capability information sets identifying said agent discovery capabilities, said agent capability information sets being subsets of full agent discovery information sets obtainable by said agents. The Office relies on paragraphs 210-212 of Heitman et al. as disclosing this limitation. However, these paragraphs merely discuss the types of information that discovery agents provide when they perform full discovery. There is no disclosure of a discovery agent having the recited capability determining logic that only returns subsets of the agent's full discovery capabilities. As discussed in applicants' specification at page 16, lines 6-10, providing minimal discovery capability information rather than a complete report of all discoverable information improves performance. Heitman et al. does not disclose this capability.

2) assignment computation logic in said network manager adapted to compute agent discovery assignments for one or more of said discovery agents based on said agent discovery capability information sets. The Office relies on paragraph 730, lines 1-10 of Heitman et al. as disclosing this limitation. However, this paragraph merely discusses an agent registry that a network manager uses to identify discovery agents and the fact that the registry lists agents by identifiers and IP addresses through which the agents can be accessed. There is no disclosure of

a network manager computing discovery assignments for discovery agents based on agent discovery capability information. The fact that agents are known to the manager does not imply that the manager knows their capabilities and assigns the agents accordingly. For all that appears in Heitman et al. agents simply collect all of the information they are capable of collecting and provide it to the manager. There is no disclosure of the manager computing agent assignments for the agents based on agent discovery capability information sets.

3) assignment implementing logic in said one or more discovery agents for implementing said agent discovery assignments. The Office relies on paragraph 731, lines 5-11 of Heitman et al. as disclosing this limitation. However, this paragraph merely discusses how agent frameworks and subagents are implemented in Java. That the agents provide discovery services is a trivial point because they would be useless if they didn't provide discovery. Note that merely performing discovery services based on how an agent is configured at the factory is not the same as implementing discovery assignments received from a network manager, which is a capability nowhere disclosed in Heitman et al.

Claim Rejections – 35 U.S.C. § 103

Claims 1-10 and 12-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Pinard et al. (US 5638494) in view of Heitman et al. Applicants respectfully traverse.

Pinard et al. and Heitman et al. are both said to be directed to managing a storage system. However, Pinard et al. is directed to an adaptive communication system wherein device resources are controlled by programmable agents to perform tasks and accomplish goals. This is not a network management discovery system or method for discovering information about a network. Pinard et al. makes no reference to intelligent network discovery and is non-analogous art. Nor are any of the elements of the rejected claims found in Pinard et al., as discussed below.

Rather, the rejection appears to be based on a picking and choosing of disparate passages in Pinard et al. that do not relate to one another and thus do not describe a cohesive system or method that operates according to the limitations of the rejected claims. It further appears that the terms “discover” and “discovery” in the rejected claims are being ignored or are given no patentable weight. If the Office contends that Pinard et al. does disclose network discovery, discovery agents, and the like, it should clearly and explicitly point out why this is the case, for as previously stated, Applicants can find no mention of intelligent network discovery in Pinard et al.

Claim 1

Pinard et al. column 1, lines 55-64 is said to disclose plural discovery agents adapted to discover information concerning said network. The cited passage discusses exemplary goals of a human based organization’s work processes and goals and how process agents and device agents may be used to accomplish the goals. There is no mention of the concept of network discovery or of discovery agents adapted to discover information about a network.

Pinard et al. column 3, lines 8-11 is said to disclose discovery agents having an associated discovery capability. The cited passage discusses how goals are input to agents to specify a task that the agent is to perform (i.e., programming an agent). No discovery task is mentioned and there is no mention of discovery agents or discovery capabilities.

Pinard et al. column 3, lines 12-13 is said to disclose discovery agents having an associated discovery assignment. The cited passage discusses the ability of a higher level agent to program lower level agents in order to assist in accomplishing some goal (i.e., programming a sub-agent). There is no mention of the concept of network discovery or discovery agents having an associated discovery assignment.

Pinard et al. column 2, lines 61-64 is said to disclose said agent discovery assignments being a subset of said agent discovery capabilities. The cited passage discusses how agents can be programmed only with goals that are within its knowledge. There is no mention of the concept of network discovery or plural discovery agents collectively having associated discovery assignments that are a subset of their discovery capabilities. There is no mention of collective agent capabilities or assignments, or of sets or subsets.

The Office concedes that Pinard et al. does not disclose discovery capability expressly, and relies on Heitman et al. paragraph 193 as teaching discovery capability. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is [sic, to] enable gathering information regarding the storage devices of its status/configuration in the network.” The problem with this statement is that the Office does not identify any storage devices in Pinard et al. Nor does the statement link the asserted motivation with the asserted “discovery capability” of Heitman et al. (i.e., how and why would the concept of agent discovery capability as allegedly taught by Heitman et al. be introduced into Pinard et al.). An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 1 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ballpark in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants' contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 2

Pinard et al. column 5, lines 53-56 is said to disclose overlapping discovery capabilities and non-overlapping discovery capabilities. The cited passage discusses a set area of an agent, which represents the ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources

immediately). There is no mention of the concept of network discovery or of overlapping discovery capabilities and non-overlapping discovery capabilities.

Claim 3

Pinard et al. column 5, lines 24-27 is said to disclose agent discovery assignments based on discovery capabilities. The cited passage is a listing of different agent types. There is no mention of the concept of network discovery or of agent discovery assignments based on discovery capabilities.

Claim 4

Pinard et al. column 9, lines 20-25 is said to disclose agent discovery assignments that reflect one or more of data collection service registrations with said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn. The cited passage discusses an information area of an agent that is used by the agent to share information with other agents. There is no mention of the concept of network discovery, or how agent discovery assignments are made, or agent discovery assignments that reflect one or more of data collection service registrations with said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn.

Claim 5

Heitman et al. at paragraph 193, lines 8-17 is said to teach agent discovery assignments comprising one or both of inband and outband discovery assignments. This passage mentions inband and outband discovery, but is referring to agent capabilities, not agent assignments. As previously discussed, Heitman et al. does not disclose or suggest the concept of agent assignments that are subsets of agent capabilities.

The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is to utilize information gathering regarding the overall network, as well as specific devices on the network (see Heitman pg. 13, paragraph 198, lines 8-17).” The problem with this statement is that the Office does not identify any agents that would receive inband or outband discovery assignments in Pinard et al. Nor does the statement link the asserted motivation with the asserted “inband and outband discovery assignments” of Heitman et al. (i.e., how and why would the concept of inband and outband discovery assignments as allegedly taught by Heitman et al. be introduced into Pinard et al.). An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 5 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that

reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ballpark in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants' contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 6

Pinard et al. column 4, lines 2-6 and Fig. 5 are said to disclose a network manager. The cited passage discusses generic processes, physical processes, generic agents and physical agents. Fig. 5 shows a blackboard (shared memory) where posting agents in need of services post requests and event handling agents register to receive event notifications so that they can perform the needed services. There is no mention of a network manager.

Pinard et al. Fig. 5 is said to disclose plural discovery agents connected to said network manager. The blackboard is not a network manager and there is no reference to discovery agents or to the concept of network discovery.

Pinard et al. column 1, lines 47-64 is said to disclose each of said discovery agents having an associated discovery capability to obtain information concerning said network. The cited passage discusses exemplary goals of a human based organization's work processes and goals and how process agents and device agents may be used to accomplish the goals. There is no

mention of the concept of network discovery or of discovery agents having an associated discovery capability to discover information about a network.

Pinard et al. column 5, lines 7-29 is said to disclose capability determining means for determining said agent discovery capabilities. This passage discusses different types of agents. There is no mention of the concept of network discovery or of capability determining means for determining discovery agent capabilities.

Pinard et al. column 5, lines 53-60 is said to disclose assignment computation means for computing agent discovery assignments for one or more of said discovery agents based on said agent discovery capabilities. The cited passage discusses a set area of an agent, which represents the ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources immediately). There is no mention of the concept of network discovery or of assignment computation means for computing agent discovery assignments for one or more discovery agents based on agent discovery capabilities.

Pinard et al. column 6, lines 6-11 is said to disclose assignment implementing means for implementing said agent discovery assignments at one or more of said discovery agents. The cited passage discusses a resource area of an agent, which contains data and knowledge required for goal decomposition (i.e., decomposing goals into sub-goals that are passed on to other agents). There is no mention of the concept of network discovery or of assignment implementing means for implementing agent discovery assignments at one or more discovery agents.

The Office concedes that Pinard et al. does not disclose discovery capability expressly, and relies on Heitman et al. paragraph 193 as teaching discovery capability. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on

Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is [sic, to] enable gathering information regarding the storage devices of its status/configuration in the network.” The problem with this statement is that the Office does not identify any storage devices in Pinard et al. Nor does the statement link the asserted motivation with the asserted “discovery capability” of Heitman et al. (i.e., how and why would the concept of agent discovery capability as allegedly taught by Heitman et al. be introduced into Pinard et al.). An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 6 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ball

park in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants' contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 7

Pinard et al. column 10, lines 20-26 is said to disclose wherein said network manager is not part of said network. The cited passage discusses the posting of events by agents to a blackboard (shared memory) so that interested event handlers can handle the events. There is no mention of a network manager or a network manager not being part of a network being discovered. There is no mention of the concept of network discovery.

Claim 8

Pinard et al. column 11, lines 37-40 is said to disclose wherein one or more of said agents are associated with nodes in said network. The cited passage discusses LAN printers in communication with printer agents. There is no mention of the concept of network discovery, or of discovery agents, or of one or more of said agents being associated with nodes in the network being discovered.

Claim 9

Pinard et al. column 10, lines 20-26 is said to disclose wherein said capability determining means comprises first means in said network manager for requesting a capability poll, second means in said agents for performing a capability query, and third means in said

agents for providing a capability poll response to said network manager. The cited passage discusses the posting of events by agents to a blackboard (shared memory) so that interested event handlers can handle the events. There is no mention of capability determining means that comprises first means in said network manager for requesting a capability poll, second means in said agents for performing a capability query, and third means in said agents for providing a capability poll response to said network manager.

Claim 10

Pinard et al. column 7, lines 44-46 and column 9, lines 20-22 is said to disclose wherein said assignment computation means is adapted to generate said agent assignments based on one or more of data collection service registrations between said network manager and said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn. The first cited passage discusses a low level agent receiving goals, tasks, policies and usage rights from a high level agent. The second cited passage discusses an information area of an agent that is used by the agent to share information with other agents. There is no mention of the concept of network discovery, or how agent discovery assignments are made, or assignment computation means that generate assignments based on one or more of data collection service registrations with said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn.

Claim 12

Pinard et al. column 1, lines 55-64 is said to disclose a method for obtaining intelligent discovery of network information in a network using a plurality of network discovery agents having mutually nonexclusive discovery capabilities. This passage states that the Pinard et al. invention is a communication system having a plurality of process agents and device agents each

in communication with its own device. The agents in the Pinard et al. system thus appear to have device responsibilities, not discovery capabilities. Moreover, there is no disclosure of the concept of network discovery.

Pinard et al. column 5, lines 28-29 is said to disclose determining agent discovery capabilities. The cited passage discusses different types of agents. There is no mention of the concept of network discovery or of determining agent discovery capabilities.

Pinard et al. column 5, lines 53-60 and column 3, lines 45-49 are said to disclose computing discovery agent assignments based on said agent discovery capabilities. The first cited passage discusses a set area of an agent, which represents the ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources immediately). The second cited passage discusses a resource broker allocation mechanism whereby a resource that consists of several devices selects a device that can be used to accomplish a goal. There is no mention of the concept of network discovery or of computing discovery agent assignments based on agent discovery capabilities.

Pinard et al. column 6, lines 6-11 is said to disclose implementing discovery agent assignments. The cited passage discusses a resource area of an agent, which contains data and knowledge required for goal decomposition (i.e., decomposing goals into sub-goals that are passed on to other agents). There is no mention of the concept of network discovery or of implementing discovery agent assignments.

The Office concedes that Pinard et al. does not disclose discovery capability expressly, and relies on Heitman et al. paragraph 193 as teaching discovery capability. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art

would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is [sic, to] enable gathering information regarding the storage devices of its status/configuration in the network.” The problem with this statement is that the Office does not identify any storage devices in Pinard et al. Nor does the statement link the asserted motivation with the asserted “discovery capability” of Heitman et al. (i.e., how and why would the concept of agent discovery capability as allegedly taught by Heitman et al. be introduced into Pinard et al.). An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 12 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ballpark in terms of relevance and applicants frankly do not understand why this reference is cited in

connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants' contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 13

Pinard et al. column 6, lines 45-56 is said to disclose wherein said agent discovery capabilities are determined by performing capability polls. The cited passage discusses how a blackboard (shared memory) and a database can be used to select agents for performing certain services. There is no mention of the concept of network discovery or of determining discovery agent capabilities by performing capability polls.

Claim 14

Pinard et al. column 9, lines 20-25 is said to disclose wherein said agent assignments are computed based on consideration of one or more of data collection service registrations between said network manager and said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn. The cited passage discusses an information area of an agent that is used by the agent to share information with other agents. There is no mention of the concept of network discovery, or how agent discovery assignments are made, or agent discovery assignments that reflect one or more of data collection service registrations with said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn.

Claim 15

Pinard et al. column 5, lines 54-56 is cited as disclosing wherein said agent assignments are implemented by limiting the scope of agent discovery to a subset of said discovery capabilities. The cited passage discusses a set area of an agent, which represents the ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources immediately. There is no mention of the concept of network discovery or of implementing discovery agent assignments by limiting the scope of agent discovery to a subset of agent discovery capabilities.

Claim 16

Pinard et al. column 5, lines 28-29 is said to disclose agent discovery capability determining logic adapted to determine discovery capabilities of discovery agents in said data storage network. The cited passage discusses different types of agents. There is no mention of agent discovery determining logic.

Pinard et al. column 5, lines 53-60 is said to disclose assignment computation logic adapted to compute agent discovery assignments based on said agent discovery capabilities. The cited passage discusses a set area of an agent, which represents the ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources immediately). There is no mention of assignment computation logic for computing agent discovery assignments for one or more discovery agents based on agent discovery capabilities.

Pinard et al. column, 10, lines 22-26 is said to disclose discovery poll request logic adapted to request network discovery from said agents according to said agent discovery assignments. The cited passage discusses the posting of events by agents to a blackboard (shared

memory) so that interested event handlers can handle the events. There is no mention of discovery poll request logic adapted to request network discovery from agents according to agent discovery assignments.

Pinard et al. column 10, lines 20-21 is cited as disclosing discovery poll response logic adapted to process network discovery received from said agents in response to said network discovery requests. The cited passage discusses the posting of events by agents to a blackboard (shared memory) so that interested event handlers can handle the events. There is no mention of discovery poll response logic adapted to process network discovery received from agents in response to network discovery requests.

The Office concedes that Pinard et al. does not disclose expressly a network manager and agents in a data storage network, and relies on Heitman et al. paragraph 195, lines 1-9 as teaching these missing elements. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is to discern the makeup or status of the storage area network so that administrators can monitor the network or apply changes (see Heitman pg. 13 paragraph 195 lines 4-8).” The problem with this statement is that the Office does not explain why the communication network of Pinard et al., which is not for the purpose of network discovery, would have been transformed into a data storage network. An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention

does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 16 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ball park in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants’ contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 17

Pinard et al. column 5, lines 16-29 is said to disclose discovery capability logic adapted to determine and provide agent discovery capability information to a requestor, said agent discovery capability information being a subset of all discovery information obtainable by said agent. The

cited passage discusses different types of agents. There is no mention of a discovery agent having discovery capability logic adapted to determine and provide agent discovery capability information to a requestor, the agent discovery capability information being a subset of all discovery information obtainable by the agent.

Pinard et al. column 7, lines 30-33 and column 6, lines 17-22 are said to disclose discovery query logic adapted to implement discovery queries based on agent discovery assignment information determined from said capability information. The first cited passage discusses an agent information area for storing routines and data. The second cited passage discusses how processes are decomposed into goals for various agents and the resources needed to accomplish each goal. There is no disclosure of discovery query logic adapted to implement discovery queries based on agent discovery assignment information determined from the capability information.

The Office concedes that Pinard et al. does not disclose expressly a network discovery agent for use in a data storage network, and relies on Heitman et al. paragraph 195, lines 1-4 as teaching this missing element. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is to discern the makeup or status of the storage area network.” The problem with this statement is that the Office does not explain why the communication network of Pinard et al., which is not for the purpose of network discovery, would have been transformed into a data storage network. An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of

ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 17 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ballpark in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants’ contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 18

Pinard et al. column 5, lines 28-29 is said to disclose determining discovery capabilities of said agents. The cited passage discusses different types of agents. There is no mention of determining agent discovery capabilities.

Pinard et al. column 5, lines 53-60 is said to disclose computing agent assignments based on said agent discovery capabilities. The cited passage discusses a set area of an agent, which represents the ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources immediately). There is no mention of computing agent assignments based on agent discovery capabilities.

Pinard et al. column, 10, lines 22-26 is said to disclose requesting one or more of said agents to perform network discovery according to said agent discovery assignments. The cited passage discusses the posting of events by agents to a blackboard (shared memory) so that interested event handlers can handle the events. There is no mention of requesting one or more agents to perform network discovery according to agent discovery assignments.

Pinard et al. column 11, lines 59-60 is cited as disclosing processing discovery information returned by one or more agents. The cited passage discusses a processor system storing processes that handle group agents and user agents. There is no mention of disclosing processing discovery information returned by one or more agents.

The Office concedes that Pinard et al. does not disclose expressly a network manager and agents in a data storage network, and relies on Heitman et al. paragraph 195, lines 1-9 as teaching this missing element. Heitman et al. at paragraph 195 lines 1-9 is cited as teaching these missing elements. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a

person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that “[t]he motivation is to discern the makeup or status of the storage area network so that administrators can monitor the network or apply changes (see Heitman pg. 13 paragraph 195 lines 4-8).” The problem with this statement is that the Office does not explain why the communication network of Pinard et al., which is not for the purpose of network discovery, would have been transformed into a data storage network. An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must “identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 18 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ballpark in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office

Action that Pinard et al. is directed to a network management system for discovering information about a network. The Office does not refute applicants' contrary observation that this reference is an adaptive communication system and is not a network management discovery system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

Claim 19

Pinard et al. column 9, lines 20-25 is cited as disclosing wherein said agent discovery assignments are based on one or more of data collection service registrations between said network manager and said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn. The cited passage discusses an information area of an agent that is used by the agent to share information with other agents. There is no mention of the how agent discovery assignments are made, or agent discovery assignments that reflect one or more of data collection service registrations with said agents, agent cost to obtain network information, load balancing among said agents, and assignment churn. Nor does Heitman et al. supply these missing elements.

Claim 20

Pinard et al. column 5, lines 28-35 is said to providing agent discovery capability information to a requestor. The cited passage discusses different types of agents and different means of allocating resources and decomposing goals. There is no mention of a providing agent discovery capability information to a requestor.

Pinard et al. column 5, lines 16-60 is said to disclose receiving agent discovery assignments from said requester that are based on said discovery capability information. The cited passage discusses different types of agents and a set area of an agent, which represents the

ability of an agent to accept setup goals, which are requests to setup resources for later use by acting goals (i.e., requests for particular services that use resources immediately). There is no disclosure of receiving agent discovery assignments from a requester that are based on discovery capability information.

Pinard et al. column 6, lines 17-22 is cited as disclosing performing intelligent discovery according to said agent discovery assignments. The cited passage discusses how processes are decomposed into goals for various agents and the resources needed to accomplish each goal. There is no disclosure of performing intelligent discovery according to agent discovery assignments.

Pinard et al. column 7, lines 30-40 is cited as disclosing providing intelligent discovery information received in response to said intelligent discovery to said requester. The cited passage discusses an agent information area for storing routines and data, and links between agents. There is no disclosure of providing intelligent discovery information received in response to intelligent discovery to a requester.

The Office concedes that Pinard et al. does not disclose expressly a managed host in a data storage network to operate as an inband discovery agent or a network manager to operate as an outband discovery agent that performs intelligent discovery in conjunction with other agents, and relies on Heitman et al. paragraph 193, lines 8-17 as teaching these missing elements. The Office does not explain exactly what modifications would have been made to the system of Pinard et al. based on Heitman et al. Nor does the Office properly explain why a person of ordinary skill in the art would have been motivated to use Heitman et al. as a basis for modifying Pinard et al. It merely states that '[t]he motivation is to utilize information gathering regarding the overall network, as well as specific devices on the network (see Heitman pg. 13 paragraph

193 lines 8-17).” The problem with this statement is that the Office does not explain why the communication network of Pinard et al., which is not for the purpose of network discovery, would have been transformed into a data storage network. An explanation of such motivation is an essential component of establishing a prima facie case of obviousness. Thus, the Office must ‘identify a reason that would have prompted a person of ordinary skill in the relevant art to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. _____ (2007); Focarino Memorandum to Technology Center Directors dated May 3, 2007 re *KSR Int’l Co. v. Teleflex Inc.*, final paragraph.

As discussed above in connection with the anticipation rejection of claim 11, Heitman et al. is directed to a storage network in which intelligent agents conduct network discovery. However, as disclosed in the Background section of the present application, network discovery as performed in Heitman et al. is subject to inefficiencies because the agents tend to have overlapping discovery capabilities and will thus perform redundant discovery processing and provide redundant discovery information to the network manager, thereby degrading network management performance. The subject matter of claim 20 overcomes this problem in a manner that is nowhere disclosed or suggested in Heitman et al. because the discovery agents in that reference blindly provide discovery information to the network manager without regard for information overlap and discovery processing inefficiency. Pinard et al. is not even in the ballpark in terms of relevance and applicants frankly do not understand why this reference is cited in connection with the present application. The Office repeats its assertion from the first Office Action that Pinard et al. is directed to a network management discovery system for discovering information about a network. The Office does not refute applicants’ contrary observation that this reference is an adaptive communication system and is not a network management discovery

system at all. Applicants strongly recommend that the Office read the Background and Summary sections of Pinard et al. for a better understanding of the field of that reference.

In view of the foregoing, Applicants respectfully request that all rejections be withdrawn and that Notices of Allowability and Allowance be issued.

Respectfully submitted,

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